

CWSF 2007 - Truro, Nova Scotia



Alanna Howell

Cleaner Fuel, Cleaner Air, Cleaner Engine

Division: Engineering & Computing Sciences / Automotive

Category: Intermediate

Region: Saskatchewan Chinook

City: Swift Current, SK

School: Swift Current Comprehensive High School

Abstract: This project investigated the factors that influence the quality of biodiesel made at home, experimenting with two production methods (manual and mechanical), and different ratios of the main ingredients. The biodiesel was measured for sootiness, combustibility, and acidity using home-designed equipment. When compared with the results of conventional diesel fuel and a biodiesel/conventional blend, biodiesel was found to be the least harmful to the environment.

Biography

I was born on December 26th, 1992 in Swift Current, Saskatchewan. With my mother and father, brothers Sean and Ian, and sister Angela, I live for on a grain farm north of Swift Current. I attended Stewart Valley School from Kindergarten to grade eight, and am currently in grade nine at the Swift Current Comprehensive High School. Here, I enjoy running with the Ardens cross-country team, and competed at Provincials last fall. Music has always had an influential role in my life, as I play both the piano and trombone, as well as sing. My favourite pastime is working with my two horses. Through being a member of 4-H for seven years, I have improved my horsemanship skills and greatly come to appreciate these wonderful equines. Some of my other interests include gardening, cooking, welding, and construction. Upon graduating from high school, I plan to attend the University of Saskatchewan. Although I am not sure which area I will specialize, I would like to obtain at least a Master's degree. Growing up on the farm is something I feel very privileged of. It has taught me that I can accomplish anything that I dedicate myself to.